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REPORT



PLEURO-PNEUMONIA AMONG CATTLE

IN THE

STATE OF NEW JERSEY.

PROCEEDINGS UNDER "AN ACT TO PREVENT THE SPREAD OF CONTAGIOUS OR
INFECTIOUS PLEURO-PNEUMONIA AMONG CATTLE IN THE
STATE OF NEW JERSEY," APPROVED MARCH 13, 1879.

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TRENTON, N. J.:

WM. S. SHARP, PRINTER AND STEREOTYPY.

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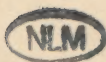
REPORT

PLEURO-PNEUMONIA AMONG CATTLE

STATE OF NEW JERSEY

IN SENATE, JANUARY 18, 1875.
REPORT OF THE COMMISSIONER OF AGRICULTURE,
IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE,
MAY 18, 1874.

1875



REPORT.

OFFICE FOR THE PREVENTION OF THE SPREAD OF CON-
TAGIOUS PLEURO-PNEUMONIA AMONG CATTLE, }
249 Washington Street, Jersey City, December 15, 1879. }

To His Excellency George B. McClellan, Governor of the State of New Jersey :

SIR—I have the honor to submit the following report of work done in carrying out the act of assembly entitled “An act to prevent the spread of contagious or infectious pleuro-pneumonia among cattle in this state.”

As your assistant and agent, which appointment your Excellency was pleased to honor me with, I commenced operations at Trenton on March 15th, 1879, and in order to determine the extent and location of the disease, I caused circulars to be addressed to the assessors of each township, to the postmasters, and to farmers of prominence throughout the State, requesting such information as they could give of disease existing in their immediate localities. From the answers returned there could be no question as to the necessity of taking prompt action in the premises.

On April 2d, 1879, I found it necessary to move the headquarters to Jersey City, and established them at No. 249 Washington street, in order to meet the requirements of moving stock to and from the State of New York, from whence the dairymen draw largely their supplies of fresh milch cows, and the largest bulk of cattle are crossed both ways at this point. I found it therefore necessary to remain at this place.

On the 17th of March I ordered Dr. Corlies to inspect the abattoir at Jersey City; and on the 24th of March Dr. Holcombe reported to me at Trenton, and was appointed Surgeon-in-Chief. Four other veterinarians were appointed, and, on April 1st, regular inspections of the herds in Bergen and Hudson counties were commenced. The said counties were quarantined, so that proper restrictions might be placed upon the movements of cattle without permits. All the ferries and boats bringing stock into New Jersey, on the eastern border were forbidden to land any stock unless accompanied with a permit issued by General M. R. Patrick, of the New York State Commission,

who had issued similar orders relative to the landing of stock in New York, thus controlling the carrying of stock between the States.

The inspections through Bergen county developed the fact that the majority of the farmers raise their own stock; and as few purchases or sales are made, their immunity from a wide spread of the disease is clearly attributable to that fact.

On March 25th Dr. Holcombe was instructed to proceed to Leonia and Fairview, and make reports to this office of the condition of the cattle there found affected with the disease. His actions there had a tendency to make complications between the State and municipal authorities, and I found it necessary to order him by telegraph to report to me, with a view of relieving him from duty, which he anticipated by tendering his resignation, and it was accepted on April 25th. The staff was reorganized with Dr. J. C. Corlies as surgeon-in-chief, since which time the work has been harmoniously and satisfactorily done; and no difficulties have occurred with the farmers, but, on the contrary, their aid has voluntarily been given towards the suppression of the disease.

The reception of numerous reports of disease, from the western and southwestern parts of the State, had occasioned much alarm. From investigations made, I became convinced that the disease was being introduced from Pennsylvania. On July 12th, 1879, I communicated with Mr. Thomas J. Edge, Secretary of the Agricultural Society of Pennsylvania, as to the existence of the disease in that State, and received additional proof that such was the case. Pennsylvania had passed a law, similar to New York and New Jersey, for the prevention and suppression of the disease, but showed no disposition to enforce the same; therefore I was thrown upon my own resources, and it became necessary to take decided measures to guard the crossings from Pennsylvania, to protect the farmers from receiving diseased stock. On August 2d, 1879, Mr. J. W. Allen was given written instructions and dispatched to Camden, for the purpose of consummating arrangements with the different ferries plying between Philadelphia and the different ports of entry between Salem and Phillipsburg, as to the carrying of stock from Pennsylvania, and the examination of the same on their arrival in this State. He was successful in gaining the co-operation of the ferry companies, and they caused to be built, on this side of their ferries, pens to hold all cattle crossing from Pennsylvania until after an examination had been made by an inspector from this office.

I am pleased to say that the Pennsylvania, Central of New Jersey and other railroads have cordially assisted the operations of the Bureau when required; they have also required their freight agents to transport no stock unless accompanied by a certificate of inspection from this office; thus all avenues of ingress were controlled as far as practicable, and now it is to be hoped the attention may be attracted of the owners

or raisers of stock in this State to the history, symptoms and danger of this dire malady, and that it may be the means of rendering the public a service of greatest importance.

By eminent authorities we are informed that pleuro-pneumonia first appeared in Germany about the middle of the eighteenth century, although others date the disease back to 1693, when a large number of cattle were destroyed by it in some of the provinces of Germany. In 1743 it invaded the canton of Zurich; thirty-five years later it prevailed most alarmingly in Upper Silesia for six years, and then extended to different parts of Germany. In 1827 it attacked cattle in Piedmont and Belgium, and in 1832 invaded Holland, continuing with unabated force for several years; in 1837 it destroyed over seven thousand head of cattle in south Holland. In 1840 it reached Great Britain, since which time it has spread extensively; it has been alleged that the malady was introduced in Great Britain from Holland by some Dutch cows imported by a friend of the English consul at one of the Dutch ports, to improve the milking qualities of the native breed in south Ireland. The disease having established itself in Cork, soon spread to other parts of Ireland, passing into London in 1842, thence to midland, western and northern counties, and thence to Scotland, which it reached in 1843. In these cases the outbreaks were clearly traceable to Irish cattle.

In 1854 the disease was found in Australia, where it rapidly spread; and, notwithstanding the measures adopted by the legislature, in applying certain restrictive provisions to arrest its progress, the malady continued to spread.

The disease, according to some authorities, was introduced into New Jersey in 1847 from England by a farmer, a Mr. Thomas Richardson, he, having imported or purchased imported stock, found the disease amongst them, and before other herds became infected he destroyed his whole herd of imported cattle, at a loss of \$10,000, setting an honorable example worthy of emulation and deserving of the gratitude of his countrymen. Too much praise cannot be given for such a noble act, and it is to be hoped that the example thus set will in some measure inspire others to imitate the course then pursued, or at least cause them to submit with equanimity to the enactments of legislation and the laws made for their own protection in extirpating the fatal malady.

In 1859 the disease reached Massachusetts from Holland, through four cows imported by Mr. Chenery, near Boston. An act was passed by legislation, appointing a commission with authority to take such action as would be likely to extirpate the disease. They were authorized to destroy all animals diseased or which had belonged to diseased herds, and disinfect the premises, and to appraise or certify to the State government the allowance made for animals destroyed. It was also enacted, "That any person who should knowingly disregard any law-

ful order or direction of said commission, or who should sell or otherwise dispose of an animal which he knows or has reason to suspect has been exposed to the disease, should forfeit a sum not exceeding five hundred dollars."

The legislature appropriated \$10,000 for expenses of the commission. The commissioners destroyed eight hundred and forty-two animals, at a cost of \$20,432. The disease continuing to spread, subscriptions to the amount of \$20,000 were made and the work of the commissioners continued for five and a half years in all before the disease was extirpated, and at a total loss to the State of Massachusetts of at least \$250,000.

It may startle some of our neighbors of Pennsylvania to learn that the disease exists among them. And we have every reason to believe, in the absence of proper preventive measures and watchfulness, there is a danger of a wide-spread visitation of the disease on our western border, requiring a careful vigilance and rigid quarantine to be kept.

When we consider the number of cattle in this State, and estimate their value, the importance of this subject will be apparent. The number of cattle in this State, January 1st, 1879, was 236,700, valued at \$7,828,922.

With a knowledge of the past history of the disease in other countries as well as in this, and the difficulty of eradicating it, as well as legislative enactments and precautionary measures hitherto adopted elsewhere, having in view its prevention, a grave responsibility will attach to those in power if, after past experiences, the disease be allowed to obtain a foothold, destroying our best stock, checking one of the great interests of this State and entailing a loss appalling to contemplate, and affecting indirectly many other interests.

The following is a brief summary of the results of the year:

The number of cattle found sick with the disease has been 572, and 2663 herds, containing 40,309 cattle, have been inspected.

Many cattle were placed in quarantine on account of showing suspicious symptoms, and were held until the incubative period had passed, being carefully watched during the meantime; when no further sickness than bronchial trouble being manifested the order of quarantine was removed.

The number of cattle found necessary to destroy in order to prevent the spread of the disease has been 315, at an average cost of \$11.85 per head.

There are in quarantine 99 herds, containing 865 cattle, of which number 257 are condemned as suffering with contagious pleuro-pneumonia.

The total expenses will aggregate in the neighborhood of \$19,000.

The report of Dr. J. C. Corlies, Veterinary Surgeon-in-Chief, hereunto annexed, gives in detail the work done by the veterinary surgeons. I am, very respectfully, your obedient servant,

WM. H. STERLING.

REPORT OF SURGEON-IN-CHIEF.

249 WASHINGTON ST., JERSEY CITY, December 15, 1879.

To General Wm. H. Sterling:

SIR—In compliance with your instructions, I have the honor to submit my report of the details and operations under my charge as Veterinary Surgeon-in-chief of the Bureau.

I found it necessary to organize a staff of six qualified veterinarians to assist in carrying out the provisions of the law entitled "An act to prevent the spread of epizootic, contagious pleuro-pneumonia among cattle in New Jersey," (see Chapter 89 of the laws of the State of New Jersey, approved March 13th, 1879.) Much work having been done in Bergen county, and no disease having been found to exist, and reports having been received at the office that the disease was in Hudson county, the inspectors were assigned to work there. Every herd has been successfully examined, and when the disease has been found the animals have either been destroyed, or the stables quarantined and the stock carefully watched. The dairymen had been in the habit of pasturing their stock indiscriminately on the public commons. This being a source of spreading the disease, it became necessary to take some steps to control it. With that object in view, the police commissioners of Jersey City were consulted, and they caused an order to be issued, September 1st, prohibiting the driving of all cattle through the streets unless accompanied by a permit issued from this office.

On July 7th it became necessary to quarantine Essex county, to facilitate inspections, which, when completed, showed as a result that the stock was, with a few exceptions, healthy. The other counties have only been inspected in localities where the disease was reported to exist, and the herds in the immediate neighborhood have been examined to ascertain the extent of the spread of the malady.

Having been made aware of the existence of the disease in Pennsylvania, and arrangements having been perfected, four veterinarians were dispatched to the western frontier of the State—one to be stationed at Bull's Island and one at Trenton, there to examine all cattle arriving between Camden and Phillipsburg; and two at Camden, to examine all stock arriving between that point and Salem, with instructions to return all stock found infected with contagious pleuro-pneumonia.

On August 18th regular examinations were commenced on that border, and results obtained have shown the necessity of the measures taken. Four months' inspections have discovered sixteen lots of diseased cattle containing 217 head, 40 of which were found infected with contagious pleuro-pneumonia, and with the rest sent back to Philadelphia. These are only the positive results obtained; the farmers have been greatly benefited by receiving a much better grade of cattle than heretofore, as the dealers buy only healthy stock, knowing by experience that it would be useless to attempt to pass any other kind.

HOW THE WORK IS BEING DONE.

Finding a strong feeling of antipathy existing among the people against the introduction of radical measures, and with a view of obviating that feeling, the inspectors were instructed to exercise discretion and extend courtesy toward those with whom they come in contact while in discharge of their duties, and to report all interference on the part of the people to this office, where the case would receive due consideration; this course, I am happy to say, has been productive of the best results as far as removing all feeling of opposition, and inducing all owners of cattle to look upon the inspectors as a source of protection.

THE METHOD OF MAKING INSPECTIONS.

In order to facilitate the work, a detective who is thoroughly acquainted with the city, precedes the inspectors locating the stables, number of cattle, &c., which he reports to this office; the inspectors are then provided with lists of the same, with printed orders of quarantine, and instructed to proceed to the places, make a careful examination, and if any diseased animals are found, to mark them by clipping the hair from the right gluteal region forming the letters P P, with a cross cut through the skin between with a sharp scalpel, while those standing contiguous to, or having been in contact with them, being thereby rendered liable to develop the malady, are simply marked with the letters and isolated to await further developments. The stable is then quarantined by placing a printed order on the building, and at the close of the day's labor, the inspectors return to the office, where, upon printed forms, a report of the number, location and condition of each herd is made, which is placed upon file for further reference. As soon as compatible, we then proceed to the infected herd, make a careful reinspection, and determine what should be done under the circumstances. The owner being first consulted by stating to him the case with its probable results, and if it is necessary to kill in order to prevent the spread of the malady, he is so informed and the animals are taken out, destroyed, their hides slashed, and the carcasses, if in the city limits, carted away by the offal contractor; if

not, they are buried. The remaining animals, though showing no diseased condition, are looked upon with suspicion from having been in contact with the infection, and when in proper condition are sent to the butcher, where they are slaughtered under the supervision of an inspector. In some instances where the animals are in a safe locality so that there is no danger of the disease spreading, though having passed through a slight attack of the malady, but evidently making a rapid recovery, it is considered prudent to keep them in quarantine until they can be fitted for the butcher, and the flesh utilized for human consumption; after the manure, litter and all materials having a tendency to retain infection have been removed from the stable, it is then thoroughly disinfected, and after ninety days, if the owner is desirous, the quarantine is removed and new cattle allowed on the premises.

DEALERS.

One of the worst difficulties we have been called upon to overcome is the dealer, a sharp, shrewd, unprincipled person, who studies to take advantage of the dairyman, and even the Bureau, whenever the opportunity presents itself. His favorite method is to go to a stable where diseased animals are known to be kept, procure one in the early stages of the malady, take it to a healthy herd where its presence will soon occasion an outbreak, when he will stand ready to purchase the diseased animals at his own price and put them upon the market to be used for beef. Investigations have shown that such a course has been productive of a great deal of trouble, and we have considered it necessary to restrict them in their manner of dealing, in order to arrest the spread of the malady; with that object in view we have introduced a system of granting permits.

PERMITS.

Requesting all those desirous of moving cattle to call at this office, where they are required to give their name, number or residence, number of cattle and where they wish to take them. If, upon consulting our books, the person does not appear as having cattle that have been previously inspected, an inspector is directed to the place, who makes an examination, and if the animals are free from infection as well as the place where they are destined to go, a printed form of permit is granted from this office allowing their removal. By this means they may be traced at any time, and any effort on the part of the dealer to traffic in unhealthy animals is prevented. This course proves a positive protection to the purchaser, as well as requiring the dealer to traffic only in healthy stock, and secure him a good reputation, however much he may desire otherwise. All cattle leaving infected places must be accompanied by a permit which admits of their being taken

only to places of slaughter, where, under the supervision of an inspector, they are destroyed and a proper disposition made of the carcasses.

RE-INSPECTIONS.

When cattle have assumed a risk but not actually presenting symptoms of the malady, and while awaiting its incubation, it has always been the custom in this, as well as in European countries, to practice occision; but, believing that proceeding to be an expensive experiment, we have adopted the rule of allowing the animals to remain in provisional quarantine, and from time to time make re-inspections, by which means we are able to keep the stable under surveillance during the incubative period, when, if the disease does not appear, the quarantine is raised and the stock declared healthy. This manner of proceeding, being a departure from the rule adopted in European countries, is looked upon with disfavor by foreign veterinarians, notwithstanding experience has taught us that it has been productive of a great saving to this State.

Several stables, containing a number of cattle, were quarantined during the opening months in consequence of finding one or more diseased animals in them, which were removed and destroyed, and the stables subjected to an occasional re-inspection until six months had elapsed, when, no further disease being manifested, the quarantine was raised and the premises declared free from all contagious disease. After carefully computing the cost of conducting these re-inspections and comparing it with the necessary expenses following the destruction of the cattle, there is a handsome balance in favor of the former method.

MISTAKEN THEORIES.

Nine months have elapsed, and constant intercourse during that time with epizootic contagious pleuro-pneumonia has established the fact that many erroneous ideas have been allowed to creep into the minds of the people in regard to the nature, character, means of prevention, &c., of the malady, and foremost amongst these is

INOCULATION.

A so-called preventive means of avoiding the spread of the malady is practiced with varying success. The following are the views of two eminent authorities on the subject. Professor Gaintard, Dean of the American Veterinary College, says:

"The prophylaxis of inoculation, efficient as it may be in an epizootic outbreak, certainly has no claims for adoption in connection with the disease as it now exists, for it would only prove one of the surest methods of spreading the malady, while our aim should be to

confine it to its present quarters, and then eradicate it at whatever cost the method may entail."

Referring to the subject, Clater says: "Inoculation has been practiced with questionable success. Experiments professing to be for the object of testing the efficacy of direct inoculation for pleuro-pneumonia have been recommended and practiced with great looseness. The peculiar subtle character of a contagious disease is not sufficiently weighed with care; it is a very general practice to recommend and adopt the remedy after an animal has succumbed to the affection. We contend, therefore, that inoculation in such cases is no test of efficacy, as, with the existence of pleuro-pneumonia upon the farm, no one can arrive at a safe conclusion whether the consequence of the malady has really resulted from a direct cause or from the artificial means employed. All the profitable terminations of pleuro-pneumonia have been witnessed equally with its unmolested march through a herd, equally with inoculation, hence our disbelief in the sufficiency of the evidence at present before us."

The results of investigations are so conflicting, indefinite and at variance with seeming facts, that it is not by any means established that any degree of success has ever been obtained by its use; there is not a single instance, so far as we have been able to learn, where it has been resorted to until after the malady had actually attacked a herd, when more or less of its number might reasonably be supposed to have assumed a risk. Now, since all authorities are agreed to the fact that its incubative period ranges all the way from ten to ninety days, we cannot see how its application could affect an animal when applied at about the time it should be assuming an acute character, unless we can go a step further and claim for it a curative effect. In the face of the fact that the malady often exhausts itself with attacking but one or two animals out of a herd of many, and the rest enjoying immunity, also that the disease often breaks out in the same herd after inoculation has been performed, as well as the negative results following its use in England, Belgium and Australia, and other countries, where the disease has existed for a long time, we think there is but little doubt, notwithstanding it has a few advocates, that it has thus far proved inert to accomplish the desired result, and that we must look elsewhere for a more substantial means of eradicating the disease.

Careful investigations recently prosecuted from this office induce us to fully coincide in the above view of the subject.

In this month's issue of the *Veterinary Journal*, Mr. George Fleming, in an editorial, takes strong ground in favor of the treatment which he bases upon the result of experiments conducted at Edinburgh, Scotland, by a Mr. Rutherford, recently from Australia; he also claims advantages following its application there, which are at variance with the true facts in the case. We have made some effort to

obtain information as to how it is received there, and find it is looked upon with a good deal of disfavor.

We also know that notwithstanding it has been practiced for a number of years, the country is still overrun by the malady. Suppose its introduction did confer immunity, we believe it would still be impracticable, owing to its cost; we have in this State 236,000 head of cattle, all of which it would be absolutely necessary to inoculate to use this method, and when we consider the time required to reach the herd, and consumed in introducing the virus, with the cost of the necessarily diseased animals which have to be destroyed in order to obtain a supply of virus, we may safely compute it at 50 cents per head, establishing a first cost to either the State or the individual farmer of not less than \$118,000; besides it would be necessary for the first few years to treat the offspring of that immense number of stock, entailing an increased expense.

OTHER DISEASES.

Many reported cases in young stock upon investigation prove to be the result of the presence in the bronchial tubes of the parasite *Strongylus Filariae*, species *Micruris*.

In some localities it exists to an alarming extent, causing a severe mortality; its symptoms being similar to pleuro-pneumonia, it is usually mistaken by the farmer for that disease; it readily yields to scientific treatment, but owing to the immense loss it entails, should receive legislative consideration.

Hog cholera exists in the southern part of the State, and is creating a good deal of alarm, but not coming within the provisions of the act under which we are working, has received but little attention; it is a subject that also calls for legislative action.

NEW FACTS.

That we meet forms of pleuro-pneumonia varying in degrees of virulence is beyond question, and to that fact may be attributed the difference of opinion in regard to the efficacy of inoculation. When we frequently find the malady will run through a herd causing perhaps the loss of but one or two out of a large number of animals, and affecting the remainder to so slight a degree that the layman can scarcely appreciate it, we must admit it differs widely from that form which (under similar circumstances) causes a mortality of fifty and sometimes sixty per cent.

To the former type may be traced the cause for the disputed question, Does an animal once affected ever recover? We are inclined to the negative side of the question; after having destroyed a number of cases that have passed through a mild attack of the malady, we have

found upon examination lung lesions generally in an encapsulated form ; these cases, we are willing to admit, are perfectly safe to mingle in a herd so long as the capsule walling up the disease germs remains intact, but if it should break down a condition we may very reasonably look for, and these germs be allowed to escape, will we not have another outbreak ? If it is true as claimed that the disease germs are imprisoned and lie dormant in the lung for months, even years, the question very naturally presents itself, Do they in the meantime lose their infecting principle ? Until this vexed question is settled beyond doubt, we advise as a means of prevention, the destruction of all such cases.

The annexed reports, which I have the honor also to submit, contain statements of the work in detail.

Very respectfully, your obedient servant,

JAMES C. CORLIES, D. V. S.

INSPECTIONS.

Inspections from March 26th to April 30th, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson	257	1,329	100
Bergen.....	476	2,470	15
Union	3	15	2
Essex.....	12	79	2
Middlesex.....	4	40	4
Mercer.....	1	1	1
Morris.....	1	13	.....
Somerset.....	1	2	.....
	755	3,949	124
Re-inspections .....	.....	229	.....
Total.....	.....	4,178	.....

Inspections in May, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson	247	1,052	58
Mercer.....	3	48	2
Middlesex.....	6	46	1
Morris	10	218	5
Union	3	23	.....
Essex	5	22	2
Bergen.....	9	11	.....
Monmouth.....	2	6	2
	285	1,426	70
Re-inspections.....	.....	703	.....
Total.....	.....	2,129	.....

Inspections in June, 1879.

COUNTIES.	Herds.	Number.	Sick.
Union.....	2	10	.....
Ocean.....	1	35	.....
Hudson.....	159	711	23
Essex.....	13	111	.....
Bergen.....	2	3	.....
Mercer.....	76	569	1
Somerset.....	4	43	.....
Burlington.....	4	33	.....
Middlesex.....	23	225	3
Gloucester.....	1	25	6
Monmouth.....	14	196	.....
Hunterdon.....	5	87	18
	304	2,048	51
Re-inspections.....	.....	1,042	.....
Total.....	.....	3,090	.....

Inspections in July, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson.....	26	144	15
Mercer.....	53	445	2
Monmouth.....	57	767	.....
Middlesex.....	13	104	2
Hunterdon.....	1	45	.....
Union.....	2	112	.....
Bergen.....	1	11	.....
Morris.....	7	125	.....
Essex.....	239	1,414	.....
Burlington.....	43	928	6
	442	4,095	25
Re-inspections.....	.....	688	.....
Total.....	.....	4,783	.....

Inspections in August, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson	105	1,776	7
Mercer	25	378	4
Union.....	5	40	7
Somerset.....	1	56	.....
Cumberland	2	93	.....
Essex.....	16	149	.....
Monmouth.....	12	274	.....
Middlesex.....	9	82	1
Passaic	2	12	.....
Salem.....	1	50	.....
Camden	24	356	.....
Burlington.....	9	463	.....
	211	3,729	19
Re-inspections .....	.....	2,404	.....
Total .....	.....	6,133	.....

Inspections in September, 1879.

COUNTIES.	Herds.	Number.	Sick.
Camden	73	1,259	.....
Hudson	201	1,981	5
Union	6	60	2
Gloucester	4	236	.....
Monmouth.....	16	64	.....
Burlington.....	2	36	.....
Hunterdon.....	19	153	.....
Essex.....	7	142	.....
Morris.....	2	7	.....
Bergen.....	1	11	.....
Warren	2	63	.....
Mercer.....	4	56	.....
Ocean	1	29	27
Middlesex.....	2	35	.....
	340	4,132	34
Re-inspections.....	.....	4,960	.....
Total.....	.....	9,092	.....

Inspections in October, 1879.

COUNTIES.	Herds.	Number.	Sick.
Camden.....	69	860	.....
Hudson	51	593	.....
Somerset.....	20	395	.....
Hunterdon.....	11	62	.....
Monmouth.....	3	31	12
Essex.....	6	24	.....
Union.....	4	95	.....
Burlington.....	1	120	.....
Ocean.....	3	27	.....
Mercer.....	3	66	2
Middlesex.....	8	46	.....
Warren.....	4	28	.....
Morris.....	1	16	.....
Bergen.....	1	1	.....
Atlantic.....	3	15	.....
Salem.....	3	47	.....
Re-inspections.....	191	2,426	14
Total.....		3,055	.....
		5,481	.....

Inspections in November, 1879.

COUNTIES.	Herds.	Number.	Sick.
Camden	43	953	.....
Essex	1	14	.....
Monmouth	2	77	.....
Hunterdon.....	5	40	.....
Union	1	1	.....
Hudson	28	336	.....
Morris.....	1	17	.....
Mercer.....	7	73	2
Bergen.....	3	13	5
Salem.....	4	6	.....
Gloucester	2	50	7
Cumberland.....	1	45
Re-inspections.....	98	1,625	14
Total.....		2,641
		4,266

REPORT ON PLEURO-PNEUMONIA.

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Inspections to December 15th, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson.....	16	46
Mercer.....	3	36	.....
Camden.....	11	64	.....
Bergen.....	1	1	.....
Hunterdon.....	1	13	.....
Middlesex.....	1	13	.....
Essex.....	3	5	.....
Burlington.....	1	4	.....
	37	182	.....
Re-inspections.....	.....	975	.....
Total.....	.....	1,157	.....

Total Inspections by Counties, from March 26th to December 15th, 1879.

COUNTIES.	Herds.	Number.	Sick.
Hudson.....	1,090	7,968	208
Bergen.....	494	2,521	20
Union.....	26	356	11
Essex.....	302	1,960	4
Middlesex.....	66	591	11
Mercer.....	175	1,672	14
Somerset.....	26	496	.....
Morris.....	22	396	5
Monmouth.....	106	1,415	14
Ocean.....	5	91	27
Warren.....	6	91	.....
Burlington.....	60	1,584	6
Hunterdon.....	42	400	18
Cumberland.....	3	138	.....
Salem.....	8	103	.....
Camden.....	220	3,492	.....
Atlantic.....	3	15	.....
Passaic.....	2	12	.....
Gloucester.....	7	311	13
	2,663	23,612	351
Re-inspections.....	.....	16,697	.....
Total.....	.....	40,309	.....

Number of cattle destroyed to December 15th, 1879, 315, of which number the State has paid for 79, \$936, an average of \$11.85 per head.

There have been sent from Camden to Philadelphia, from August 28th to December 15th, 1879, 217 head of stock, 40 of which number were affected with contagious pleuro-pneumonia.

